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1

## REMARKS

2 These remarks follow the order of the paragraphs of the office action. Relevant portions of the  
3 office action are shown indented and italicized.

4

## **DETAILED ACTION**

5 ... *For the reasons given above, rejections on claims 1-20 are maintained and analyzed*  
6 *as follow.*

7 Applicants maintain their arguments previously made and repeated below.

8 However, in order to bring this application to allowance, claims 1, and 7 are amended and claim  
9 21 is added. Claim 7 is a narrow claim having all the advantages of the present invention. It is  
10 anticipated that it would easily be recognized that it is allowable over any of the cited art. It  
11 includes specific and novel combination of steps for net browsing. Even if each individual step  
12 would be known, which applicants maintain they are not, a new combination of known elements  
13 is allowable, especially in as much as it results in the advantages described in the specification.

14 Claim 21 is a very narrow claim protecting the specific embodiment broadly described in the  
15 specification.

### 16 *Claim Rejections -35 USC § 102*

17 2. *The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form*  
18 *the basis for the rejections under this section made in this Office action:*

19 *A person shall be entitled to a patent unless - .(b) the invention was patented or described in a printed*  
20 *publication in this or a foreign country or in public use or on sale in this country, more than one year prior*  
21 *to the date of application for patent in the United States.*

22 3. *Claims 1-5, 7-9, 11-12, 16-18 are rejected under 35 U.S.C. 102(b) as being*  
23 *anticipated by Tanigawa et al. (US 5,973,681).*

24 *Regarding claim 1, Tanigawa discloses a method for browsing the Web on the Internet,*  
25 *comprising using a browserless broadcast system (see figures 1-2, col. 19, lines 7-43, col.*  
26 *20, lines 50-67, col. 28, line 61-col. 29, line 11), which includes:*

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1 In response, the applicants respectfully state that exception is taken with the comparison of the  
2 elements of claim 1 and the art of Tanigawa as stated in the office communication above. A  
3 review of Tanigawa fails to show that claim 1 reads on Tanigawa. It is not contestable that many  
4 similar components and elements for receiving, transmitting and displaying are used in  
5 Tanigawa, these are used functionally in different ways than as used in claim 1. Besides, claim 1  
6 is further amended to bring the application to allowance quickly. Claim 1 as amended reads:

7 1. A method for browsing the Web on the Internet, comprising using a browserless  
8 broadcast system which includes:

9 providing a transmitting unit for compressing video data in accordance with a  
10 predetermined compression scheme and transmitting the compressed data;

11 and providing a receiving unit for receiving and decoding the transmitted video data and  
12 directly transmitting the data to a video display device, the method further comprising the  
13 steps of:

14 converting a web page transmitted to the transmitting unit from the Internet into video  
15 data;

16 compressing the video data in accordance with the predetermined compression scheme;

17 transmitting the compressed video data;

18 receiving and decoding the transmitted video data using the receiving unit to directly  
19 transmit the decoded data to a video display device, without requiring a browser  
20 application; and

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1 establishing an association between a link provided to the video data and a position of a  
2 cursor in the video data transmitted to the video display device by comparing a position  
3 coordinate of the cursor with coordinates of points included in area links linked to other  
4 web pages and the like.

5 In order to anticipate a claim the reference must anticipate and have all the elements of the claim.  
6 Tanigawa fails to anticipate all the elements of claim 1. The cited portions of Tanigawa fail to  
7 show that "[T]anigawa discloses a method for browsing the Web on the Internet, comprising  
8 using a browserless broadcast system (see figures 1-2, col. 19, lines 7-43, col. 20, lines 50-67,  
9 cot. 28, line 61-col. 29, line 11)," as alleged in the office communication. There is no indication,  
10 reference or concern shown for browserless browsing in Tanigawa Figures 1-2, col. 19, lines  
11 7-43, col. 20, lines 50-67, cot. 28, line 61-col. 29, line 11. Tanigawa Figures 1-2, are described  
12 in Tanigawa column 6, as "FIG. 1 is a block diagram showing the structure of the data  
13 communication system 100 of the first embodiment of the present invention," and "FIG. 2 shows  
14 an example file list 200 stored in the file list storing unit 121." A review of Tanigawa Figs 1 and  
15 2 shows that Tanigawa doesn't have "a receiving unit for receiving and decoding the transmitted  
16 video data and directly transmitting the data to a video display device." Tanigawa doesn't allude  
17 to the direct transmission of video data from a receiving device to a video display device.

18 Applicants fail to understand the relevance of the cited portions [copied below] of Tanigawa's  
19 multiplexing technique to the elements of claim 1. Tanigawa col. 19, lines 7-43, reads;

20 "The multiplexing unit 115 multiplexes the display image information (including the  
21 audio information) and the link information read by the transmission data reading unit  
22 114, and outputs multiplexed data to the transmitting unit 116. Here, this multiplexing  
23 can be performed using the same method as conventional teletext broadcasting. In such a  
24 case, display image information and audio information are multiplexed in the same way  
25 as the images and audio included in conventional TV broadcasts, while link information  
26 is multiplexed in the same way as the text information multiplexed with teletext  
27 broadcasts. This in to say, when no audio information is present, the display image  
28 information is transmitted in the image section of one frame of the television image  
29 signal, while the link information is transmitted in the retrace section of the same one  
30 frame of the television image signal. When audio information is present, the audio  
31 information is transmitted as the television audio signal, while the corresponding display

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1 image information and link information are transmitted in the image area and retrace area,  
2 respectively, of the television image signal for the number of frames required by the  
3 reproduction of the audio information;

4  
5 The transmitting unit 116 successively transmits the transmission data which has been  
6 multiplexed by the multiplexing unit 115 on a TV broadcast ground wave.

7  
8 Transmission Method for the Transmission Data

9  
10 FIG. 11A gives a graphic representation of the transmission method used by the  
11 transmitting unit 116. FIG. 11A shows the case when n pages (n being a positive integer)  
12 of transmission data are generated by the transmission data generating unit 112. In FIG.  
13 11A, a pairing of audio information and display image information with a same  
14 identification number is expressed as one transmission unit corresponding to a normal TV  
15 broadcast, and the link information for the same identification number is expressed as one  
16 transmission unit corresponding to the text information which is multiplexed into a  
17 standard teletext broadcast.

18 Applicants also fail to see how this is relevant to the elements of claim 1.

19 Tanigawa col. 20, lines 50-67, reads:

20 The symbols "V1, A1, L1" in the transport stream represent the display image  
21 information, audio information, and link information which have the identification  
22 number "0001" and which are read from the transmission data file and multiplexed  
23 together. This is also the case for "V2, A2, L2" . . . "Vn, An, Ln". "V1" is a video  
24 elementary stream which shows the display image information which has been converted  
25 into I (Intra) pictures under MPEG2 standard, with the PID (Packet IDentifier) "0x0100"  
26 having been attached to identify the stream. This is also the case for "V2" . . . "Vn".

27 "A1" is an audio elementary stream which shows the audio information which has been  
28 converted under MPEG2 standard, with the PID "0x0101" having been attached to  
29 identify the stream. This is also the case for "A2" . . . "An".

30 "L1-Ln" are private sections according to MPEG2 standard for attaching each set of link  
31 information, with the PID "0xB0" having been attached to identify these as private

32 Applicants fail to see how this is regarding Tanigawa's audio elementary stream, etc., is relevant  
33 to the elements of claim 1.

36 Also, Tanigawa col. 28, line 61-col. 29, line 11, reads:

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1 The present embodiment describes the case when in order to display WWW home pages  
2 on the Internet, the data communication system 100 uses a one-to-many TV broadcast to  
3 perform simulated bidirectional communication, so that when compared to the case  
4 when home pages are displayed by a browser on a personal computer, the display of the  
5 user's desired pages on the display unit 154 can be performed at a high speed which is  
6 unaffected by congestion. Since display image information is sent in a conventional TV  
7 format, the display of full color, high-resolution images can easily be achieved by the  
8 display unit 154. Also, while the display or display images generated by a browser for  
9 display on a TV monitor does not make full use of the components, such as the  
10 reproduction processing for display images, conventionally provided inside a TV, the  
11 present embodiment can achieve simulated bidirectional communication which makes  
12 full use of circuitry, such as memory and decoders, conventionally provided inside a TV  
13 set.

14 Applicants fail to see how this one to many specific technique is relevant to the elements of claim

15 1.

16 Also, applicants respectfully state that exception is taken with the office communication  
17 statement that Tanigawa anticipates:

18 *"establishing an association between a link provided to the video data and a position of a*  
19 *cursor in the video data transmitted to the video display device (e.g. see include, but is*  
20 *not limited to, figures 18a-20, col. 23, lines 30-37, col. 24, lines 46-50, col. 25, lines*  
21 *5-18, col. 26, lines 17-52)."*

22 A review of the Tanigawa cited portions fails to show any concern of Tanigawa of any  
23 association between a link provided to the video data and a position of a cursor. Tanigawa,  
24 indeed fails to teach a step of "establishing an association between a link provided to the video  
25 data and a position of a cursor in the video data transmitted to the video display device."  
26 Tanigawa certainly fails to disclose an association established "by comparing a position  
27 coordinate of the cursor with coordinates of points included in area links linked to other web  
28 pages and the like." Thus claim 1 and all claims that depend on claim 1 are allowable over the  
29 reference.

30 *a transmitting unit for compressing video data in accordance with a predetermined*  
31 *compression scheme and transmitting the compressed data (transmission data*  
32 *generating, transmitting data holding unit, transmitting data reading unit, multiplexing*  
33 *unit, transmitting unit- hereinafter referred to as transmitting unit-compressing video*  
34 *data in MPEG-2 for transmitting over digital satellite broadcasting to the receiving*  
35 *apparatus 150 - see include, but is not limited to, figure 1, col. 20, lines 12-67);*

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1 Applicants review the many references of Tanigawa and fail to see the alleged teaching in these  
2 portions of the present claims:

3 Tanigawa col. 20, lines 12-67 reads:

4 The multiplexing unit 115 has also been described as multiplexing the display image  
5 information (including the audio information) and the link information which are  
6 generated by the transmission data generating unit 112, with the transmitting unit 116  
7 transmitting the transmission data which has been multiplexed by the multiplexing unit  
8 115 on a TV broadcast ground wave, although the display image information and link  
9 information do not need to be multiplexed together for transmission. As one example, the  
10 display image information and the audio information may be transmitted on a TV  
11 broadcast ground wave or as a digital satellite broadcast, while the link information may  
12 be transmitted using a telephone link and modem, or the like. Transmission here may  
13 alternatively be performed using multiple channels.

14  
15 When digital satellite broadcasting is used as the data transmission method,  
16 compression/encryption and multiplexing may be performed according to MPEG2  
17 (Moving Pictures Experts Group) video standard and system standard, so that display  
18 image information may be set as I pictures, with the audio information and link  
19 information being set as private information. Here, when it is possible for the display  
20 image information, audio information, and link information to be transmitted as digital  
21 data, it is no longer necessary to write a graphic representation of the identification  
22 number into the non-displayed area of the display image information, so that the  
23 identification number can be simply appended to the display image information and audio  
24 information, in the same way as with the link information. Incidentally, a detailed  
25 description of MPEG2 standard is given in "Saishin MPEG Kyoushio [Latest MPEG  
26 Reader]" published by ASCII Publishing, Inc.

27  
28 FIG. 11B shows the multiplexed stream which is transmitted when digital satellite  
29 broadcasting is used. The upper part of this drawing shows a transport stream under  
30 MPEG2 standard which has been generated by the multiplexing unit 115.

31  
32 The symbols "V1, A1, L1" in the transport stream represent the display image  
33 information, audio information, and link information which have the identification  
34 number "0001" and which are read from the transmission data file and multiplexed  
35 together. This is also the case for "V2, A2, L2" . . . "Vn, An, Ln". "V1" is a video  
36 elementary stream which shows the display image information which has been converted  
37 into I (Intra) pictures under MPEG2 standard, with the PID (Packet IDentifier) "0x0100"  
38 having been attached to identify the stream. This is also the case for "V2" . . . "Vn".

39  
40 "A1" is an audio elementary stream which shows the audio information which has been  
41 converted under MPEG2 standard, with the PID "0x0101" having been attached to  
42 identify the stream. This is also the case for "A2" . . . "An".

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1 "L1-Ln" are private sections according to MPEG2 standard for attaching each set of link  
2 information, with the PID "0xB0" having been attached to identify these as private  
3 sections. Here, identification numbers are also set in the table ID extensions to identify  
4 separate sets of link information. Each of these sets of link information is set at least one  
5 pairing of one part of the image area of the corresponding display image and information  
6 showing a link to another display image. An one example, in "L1", the display area  
7 centered on the coordinates (X,Y)=(100,600) is set the link "GOTO.sub.-- PAGE:(0002)"  
8 representing a link to the display image with the identification number "0002", while the  
9 display area centered on the coordinates (X,Y)=(10, 700) is set the link "GOTO.sub.--  
10 PAGE(0003)" representing a link to the display image with the identification number  
11 "0003".

12  
13 The correspondence between the PIDs described above and the identification numbers is  
14 set according to the PMT (Program Map Table) under MPEG2 standard. Here, the  
15 correspondence between the PIDs and the identification numbers can be written in the  
16 descriptors of the private sections, such as by setting the identification numbers as the  
17 component tags in the PMT, as shown in FIG. 11B.

18 In the above case, the video elementary stream, audio elementary stream, and private

20 Thus, a review of these sometimes lengthy reference fails to teach the elements of the present  
21 claims. It continues:

22 *and a receiving unit for receiving and decoding the transmitted video data  
23 and directly transmitting the data to a video display device (e.g., separating unit,  
24 received data holding unit, reproducing unit, and control unit, process the  
25 received MPEG-2 and transmitted the processed signal directly to display unit  
26 154 for display (see include, but are not limited to, figure 1, col. 23, line 53-col.  
27 25, line 18. Since the data is received in encoded MPEG-2 (col.20, lines 28-34),  
28 the received MPEG-2 data must be decoded before it is displayed), the method  
29 comprising the steps of:*

30 col.20, lines 28-34 reads:

31 When digital satellite broadcasting is used as the data transmission method,  
32 compression/encryption and multiplexing may be performed according to MPEG2 (Moving  
33 Pictures Experts Group) video standard and system standard, so that display image information  
34 may be set as I pictures, with the audio a information and link information being set as private  
35 information. Here, when it is possible for the display image information, audio information, and  
36 link information to be transmitted as digital data

37 In response the applicant respectfully states the action continues:

38 *converting a web page transmitted to the transmitted unit from the  
39 Internet into video data (e.g., converting page information into image data,*

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1                   *control information, and supplementary design information see include, but is not*  
2                   *limited to; col. 3, lines 1-15, col. 11, lines 60-67);*

3                   col. 3, lines 1-15 reads:

4                   With the above construction, page information received from an external source can be converted  
5                   into image data, control information, and supplementary design information which indicates a  
6                   combining of supplementary designs for each set of image data, these sets of data being suited to  
7                   broadcasting

8  
9                   Here, the obtaining unit may obtain the page information from the World Wide Web on the  
10                  Internet.

11  
12                  With the above construction, the transmitting apparatus can convert HTML documents on  
13                  WWW servers on the Internet into image data, control information, and supplementary design  
14                  information which it then broadcasts. As a result, the transmitting apparatus can provide users  
15                  with an interactive program which resembles "net surfing" on the Internet using only a TV  
16                  broadcast wave.

17                  The action continues:

18                   *compressing the video data in accordance with the predetermined*  
19                   *compressing scheme (comprising the display image data, audio, link information,*  
20                   *into MPEG-2 for broadcasting - col. 20, lines 13-44);*

21                   col. 20, lines 13-44 reads:

22                  multiplexing the display image information (including the audio information) and the link  
23                  information which are generated by the transmission data generating unit 112, with the  
24                  transmitting unit 116 transmitting the transmission data which has been multiplexed by the  
25                  multiplexing unit 115 on a TV broadcast ground wave, although the display image information  
26                  and link information do not need to be multiplexed together for transmission. As one example,  
27                  the display image information and the audio information may be transmitted on a TV broadcast  
28                  ground wave or as a digital satellite broadcast, while the link information may be transmitted  
29                  using a telephone link and modem, or the like. Transmission here may alternatively be performed  
30                  using multiple channels.

31  
32                  When digital satellite broadcasting is used as the data transmission method,  
33                  compression/encryption and multiplexing may be performed according to MPEG2 (Moving  
34                  Pictures Experts Group) video standard and system standard, so that display image information  
35                  may be set as I pictures, with the audio a information and link information being set as private  
36                  information. Here, when it is possible for the display image information, audio information, and  
37                  link information to be transmitted as digital data, it is no longer necessary to write a graphic  
38                  representation of the identification number into the non-displayed area of the display image  
39                  information, so that the identification number can be simply appended to the display image  
40                  information and audio information, in the same way as with the link information. Incidentally, a  
41                  detailed description of MPEG2 standard is given in "Saishin MPEG Kyoukasho [Latest MPEG  
42                  Reader]" published by ASCII Publishing, Inc.

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1 The action continues:  
2                   *transmitting the compressed video data (transmitted the MPEG-2 stream*  
3                   *including video stream, display image information, audio stream, audio*  
4                   *information, and link information, etc.— see include, but are not limited to, col.*  
5                   *20, lines 13-67, figures 1, 11B);*  
6 col. 20, lines 13-67 reads:  
7 The multiplexing unit 115 has also been described as multiplexing the display image information  
8 (including the audio information) and the link information which are generated by the  
9 transmission data generating unit 112, with the transmitting unit 116 transmitting the  
10 transmission data which has been multiplexed by the multiplexing unit 115 on a TV broadcast  
11 ground wave, although the display image information and link information do not need to be  
12 multiplexed together for transmission. As one example, the display image information and the  
13 audio information may be transmitted on a TV broadcast ground wave or as a digital satellite  
14 broadcast, while the link information may be transmitted using a telephone link and modem, or  
15 the like. Transmission here may alternatively be performed using multiple channels.  
16  
17 When digital satellite broadcasting is used as the data transmission method,  
18 compression/encryption and multiplexing may be performed according to MPEG2 (Moving  
19 Pictures Experts Group) video standard and system standard, so that display image information  
20 may be set as I pictures, with the audio information and link information being set as private  
21 information. Here, when it is possible for the display image information, audio information, and  
22 link information to be transmitted as digital data, it is no longer necessary to write a graphic  
23 representation of the identification number into the non-displayed area of the display image  
24 information, so that the identification number can be simply appended to the display image  
25 information and audio information, in the same way as with the link information. Incidentally, a  
26 detailed description of MPEG2 standard is given in "Saishin MPEG Kyoushio [Latest MPEG  
27 Reader]" published by ASCII Publishing, Inc.  
28  
29 FIG. 11B shows the multiplexed stream which is transmitted when digital satellite broadcasting  
30 is used. The upper part of this drawing shows a transport stream under MPEG2 standard which  
31 has been generated by the multiplexing unit 115.  
32  
33 The symbols "V1, A1, L1" in the transport stream represent the display image information, audio  
34 information, and link information which have the identification number "0001" and which are  
35 read from the transmission data file and multiplexed together. This is also the case for "V2, A2,  
36 L2" . . . "Vn, An, Ln". "V1" is a video elementary stream which shows the display image  
37 information which has been converted into I (Intra) pictures under MPEG2 standard, with the  
38 PID (Packet IDentifier) "0x0100" having been attached to identify the stream. This is also the  
39 case for "V2" . . . "Vn".  
40  
41 "A1" is an audio elementary stream which shows the audio information which has been  
42 converted under MPEG2 standard, with the PID "0x0101" having been attached to identify the  
43 stream. This is also the case for "A2" . . . "An".  
44

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1 "L1-Ln" are private sections according to MPEG2 standard for attaching each set of link  
2 information, with the PID "0xB0" having been attached to identify these as private sections.  
3 Here, identification numbers are also set in the table ID extensions to identify separate sets of  
4 link information. Each of these sets of link information is set at least one pairing of one part of  
5 the image area of the corresponding display image and information showing a link to another  
6 display image. An one example, in "L1", the display area centered on the coordinates  
7 (X, Y)=(100, 600) is set the link "GOTO.sub.-- PAGE:(0002)" representing a link to the display  
8 image with the identification number "0002", while the display area centered on the coordinates  
9 (X, Y)=(10, 700) is set the link "GOTO.sub.-- PAGE(0003)" representing a link to the display  
10 image with the identification number "0003".

11  
12 The correspondence between the PIDs described above and the identification numbers is set  
13 according to the PMT (Program Map Table) under MPEG2 standard. Here, the correspondence  
14 between the PIDs and the identification numbers can be written in the descriptors of the private  
15 sections, such as by setting the identification numbers as the component tags in the PMT, as  
16 shown in FIG. 11B.

17  
18 In the above case, the video elementary stream, audio elementary stream, and private

19 The action continues:

20 *receiving and decoding the transmitted video data using the receiving unit  
21 to directly transmit the decoded data to a video display device, without requiring  
22 a browser application (receiving and processing the transmitted MPEG-2 using  
23 separating unit, received data holding unit, reproducing unit, control unit, signal  
24 receiving and transmitted the processed data to display unit 154 for display see  
25 include, but is not limited to, figure 1, col. 20, lines 13-67, col. 23, line 50-col. 24,  
26 line 50, col. 28, line 47-col. 29, line 11; the MEPG-2 data must be decoded before  
27 it is displayed. Since the receiving apparatus does not have a browser (discussed  
28 in " to Argument" above), the processed data is directly transmitted to the display  
29 unit without requiring a browser application).*

30 col. 20, lines 13-67 reads as stated above.

31 col. 23, line 50-col. 24, line 50 reads:

32 The following is an explanation of the components of the data receiving apparatus 150, with  
33 reference to FIGS. 16 to 20.

34 Structure of the Separating Unit 151

35 The separating unit 151 includes a read buffer 161 for reading the identification number allotted  
36 to transmission data. The read buffer 161 has storage areas for temporarily holding the display  
37 image information (including audio information) included in one transmission file and the link  
38 information included in one transmission file.

39  
40  
41  
42 The separating unit 151 separates display image information (including audio information) and

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1 link information from the received transmission data, and stores the separated display image  
2 information and link information in the corresponding storage areas of the read buffer 161. The  
3 identification number assigned to the display image information stored in the storage area is read  
4 by recognizing the image written in the predetermined part of the non-displayed area of the  
5 display image information. The identification number assigned to the link information is read in  
6 the same manner as when reading an identification number assigned to a conventional digital  
7 data file. If the read identification number is the identification number designated by the control  
8 unit 155, the display image information (Including audio Information) or the link information  
9 held by the read buffer 161 is stored in the corresponding storage area in the received data  
10 holding unit 152. At this point, any audio information which is present is stored by the separating  
11 unit 151 in a corresponding storage area provided in the received data holding unit 152 at the  
12 same time as the display image information is stored, so that the audio information is gradually  
13 accumulated while the display image information with the identification number designated by  
14 the control unit 155 is repetitively transmitted. By doing so, audio information which is  
15 transmitted across a plurality of frames can be separated from the transmission data.  
16  
17 If the read identification number is not the identification number designated by the control unit  
18 155, the display image information (including audio information) or its link information held by  
19 the read buffer 161 is discarded. The reading of new display image information (including audio  
20 information) and link information is continued, and the above procedure is repeated until the  
21 identification number designated by the control unit 155 is detected.

22  
23 Structures of the Received Data Holding Unit 152, the Reproducing Unit 153

24 col. 28, line 47-col. 29, line 11 reads:  
25 As described above, in the present embodiment the display image information, which  
26 conventionally would have had to have been generated by the data receiving apparatus 150 while  
27 the data receiving apparatus 150 is interpreting the control information, is generated and  
28 transmitted by the data transmitting apparatus 110, which reduces the load of each data receiving  
29 apparatus 150. Also, when compared with the large number and variety of display control  
30 processes for display character strings which were conventionally written into the control  
31 information, the link information of the present embodiment contains a smaller number and less  
32 variety of control processes. As a result, simulated bidirectional communication can be easily  
33 achieved by the data receiving apparatuses 150 using this link information.

34  
35 The present embodiment describes the case when in order to display WWW home pages on the  
36 Internet, the data communication system 100 uses a one-to-many TV broadcast to perform  
37 simulated bidirectional communication, so that when compared to the case when home pages are  
38 displayed by a browser on a personal computer, the display of the user's desired pages on the  
39 display unit 154 can be performed at a high speed which is unaffected by congestion. Since  
40 display image information is sent in a conventional TV format, the display of full color,  
41 high-resolution images can easily be achieved by the display unit 154. Also, while the display or  
42 display images generated by a browser for display on a TV monitor does not make full use of the  
43 components, such as the reproduction processing for display images, conventionally provided  
44 inside a TV, the present embodiment can achieve simulated bidirectional communication which

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1 makes full use of circuitry, such as memory and decoders, conventionally provided inside a TV  
2 set.

3 In response the applicants respectfully take continued exception with the office communication  
4 allegations of the teaching of claim 1 elements by Tanigawa. The action continues:

5 *Tanigawa further discloses link information including image link, web page link, etc. and*  
6 *position of cursor (e.g., position coordinate of the icon, cursor/supplemental design, etc.*  
7 *are provided in the multiplexed signal (see include, but are not limited to, col. 3, lines*  
8 *1-30, col. 4, lines 1-13, col. 5, lines 5-9, lines 56-67, col. 10, lines 36-67, col. 12, lines*  
9 *15-30, col. 20, line 50-col. 21, line 12).*

10 Tanigawa col. 3, lines 1-30 reads:

11 With the above construction, page information received from an external source can be  
12 converted into image data, control information, and supplementary design information  
13 which indicates a combining of supplementary designs for each set of image data, these  
14 sets of data being suited to broadcasting

15 Here, the obtaining unit may obtain the page information from the World Wide Web on  
16 the Internet.

19 With the above construction, the transmitting apparatus can convert HTML documents on  
20 WWW servers on the Internet into image data, control information, and supplementary  
21 design information which it then broadcasts. As a result, the transmitting apparatus can  
22 provide users with an interactive program which resembles "net surfing" on the Internet  
23 using only a TV broadcast wave.

25 Here, the determining unit may determine a headline as the specified image part, and the  
26 generating unit may generate supplementary design combining information which  
27 indicates a combining of the specific image part with a supplementary design for bold  
28 display.

30 With the above construction, the transmitting apparatus can detect the headline written in  
31 an HTML document on a WWW server on the Internet and can generate supplementary  
32 design combining information indicating a combining of the supplementary design at an  
33 image position of the headline. The receiving apparatus receives this supplementary  
34 design combining information and combines a supplementary design, which is made up  
35 of a frame which surrounds the title of the image data, with the image data to emphasize  
36 the title of the image data.

37 Tanigawa col. 4, lines 1-13 reads:

38 system using a broadcast wave, wherein the broadcast wave is produced by multiplexing  
39 a plurality of frames of image data, and control information which includes image link  
40 information for each frame of image data showing links with other frames or image data

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1 and supplementary design combining information indicating the combining of a  
2 supplementary design with the plurality of frames of image data, the broadcast wave  
3 being repeatedly transmitted, and the supplementary design being combined with an  
4 image of the image data, wherein the receiving apparatus includes: a separating unit for  
5 separating a frame of image data and corresponding control information from the  
6 broadcast wave; a supplementary design storage unit for storing at least one  
7 col. 5, lines 5-9 reads:

8 combines the supplementary design, which is a frame which surrounds the title of the  
9 display image, with the image data to emphasize the title.

10 Here, the classification may indicate one of a character and image to which a link has  
11 been attached as the specific image part and the supplementary design specifying unit  
12 may specify a supplementary design which shows that the specific image part has an  
13 attached link to other image data.

14  
15 With the above construction, the transmitting apparatus receives supplementary design  
16 combining information and combines the supplementary designs showing links to other  
17 image data at the positions of characters or images which are linked to other sets of image  
18 data, so that the characters or images which are linked to other sets of image data are  
19 emphasized in the display.

20  
21 Thus applicants respectfully state that these fail to show anticipation of claim 1. Thus, claim 1  
22 and all claims that depend on claim 1 are allowable over Tanigawa.

23 *Regarding claim 2, Tanigawa discloses a method as discussed in the rejection of claim 1.*  
24 *Tanigawa further discloses converting a web page comprises providing the link to the*  
25 *video data on the basis of a link provided to the web page (e.g., providing link such as*  
26 *link web page, or html page, etc. to video data, display image or video stream, or MPEG*  
27 *stream based on link (e.g., link to tokyo.html, link to weather.au, or link to*  
28 *www.wbc.com, etc., provided in the web page - see include, but is not limited to, figures*  
29 *7-10, col. 10, line 23-col. 11, line 67, col. 12, lines 15-42), the step of transmitting the*  
30 *compressed video data comprises transmitting the compressed video data and*  
31 *information about the link (transmitting the video data comprising transmitting MPEG-2*  
32 *including video stream, display image, link information, audio information, etc. - see*  
33 *figures 1, 11B, col. 18, line 38-col. 19, line 43, col. 20, line 13-col. 21, line 30).*

34 In response, the applicants respectfully state that a review of the figures and referenced lines of  
35 Tanigawa fails to show that Tanigawa even alludes to a step of converting a web page by  
36 "providing the link to the video data on the basis of a link provided to the web page," and a step  
37 of transmitting that includes transmitting the compressed video data and information about the

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1 link." Tanigawa apparently doesn't transmit information about the link. Thus claim 2 is  
2 allowable over the cited art for itself and also because it depends on allowable claim 1.

3 *Regarding claim 3, Tanigawa discloses a method as discussed in the rejection of claim*

4 *1. Tanigawa further discloses providing a link to the video data comprising:*  
5 *extracting a web address linked to the link provided to the web page (e.g. extracting*  
6 *address/link information linked to " " page, " " page, or read the URL, etc. provided to*  
7 *the web page— see include, but is not limited to, figures 2-10, col. 2, line 50-col. 3, line*  
8 *8, col. 7, line 60-col. 9, line 61);*

9 *placing the link in the video data on the basis of the position of the link provided to the*  
10 *web page (placing the link information including cursor position, page information,*  
11 *coordinate, etc. in the multiplexed stream/ MPEG stream on the basis of the cursor*  
12 *position of the link, or link information, etc. provided to the web page see include, but is*  
13 *not limited to, figures 7-11b, col. 2, line 50-col. 3, line 8; col. 8, lines 30-64, col. 10, lines*  
14 *1-67, col. 12, lines 15-30, col. 13, lines 35-62, col. 20, line 13-col. 21, line 18).*

15 In response, the applicants respectfully state that Tanigawa's "FIG. 3 shows the HTML document  
16 301 "Report.html" which is the first page of a home page provided by a WWW server." Also,  
17 Tanigawa refers to "Tokyo.html"

18 '[TOKYO](Tokyo.html)' on line 319 of FIG. 3 indicates that the  
19 character string "TOKYO" is linked to the HTML document 501 "Tokyo.html" which is  
20 shown in FIG. 5.

21 This apparently does not anticipate a "step of providing a link to the video data," that includes  
22 "extracting a web address linked to the link provided to the web page; and placing the link in the  
23 video data on the basis of the position of the link provided to the web page," as in claim 3. Thus  
24 claim 3 is allowable over the cited art for itself and also because it depends on allowable claim 1.

25 *Regarding claim 4, Tanigawa discloses a method as discussed in the rejection of claim 2.*  
26 *Tanigawa additionally discloses the step of receiving and decoding the transmitted video*  
27 *data comprises:*

28 *decoding the received data (the received MPEG-2 data must be decoded before it is*  
29 *displayed -discussed in rejection of claim 1 above);*

30 *transmitting the decoded data to the video display device (transmitting decoded data to*  
31 *display unit 154 —figure 1, col. 24, lines 36-51);*

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1       *establishing an association between the information about the link provided to the*  
2       *received video data and a position of a cursor in the video data transmitted to the video*  
3       *display device (see discussion in the rejection of claim 1 above).*

4       In response, the applicants respectfully state that exception is taken with the comparison of the  
5       elements of claim 4 and the art of Tanigawa as stated in the office communication above. A  
6       review of Tanigawa fails to show that claim 4 reads on Tanigawa. The cited portions don't have  
7       or allude to a combination of steps for decoding the received data, transmitting the decoded data  
8       to the video display device; and establishing an association between the information about the  
9       link provided to the received video data and a position of a cursor in the video data transmitted to  
10      the video display device. Thus claim 4 is allowable over the cited art for itself and also because  
11      it depends on allowable claim 1.

12       *Regarding claim 5, Tanigawa discloses a method as discussed in the rejection of claim 1.*  
13       *Tanigawa also discloses video data includes audio data when web page include voice or*  
14       *sound (broadly interpreted as the multiplexed MPEG-2 includes audio data, when web*  
15       *page include audio information (e.g., weather.au) see include, but is not limited to,*  
16       *figures 2-3, 11b, .col. 9, lines 34-39, col. 18, lines 45-59, col. 17, lines 30-42, col. 18,*  
17       *lines 38-44, col. 19, lines 7-31, col. 20, lines 50-63, col. 21, line 53-57).*

18       In response, the applicants respectfully state that exception is taken with the comparison of the  
19       elements of claim 5 and the art of Tanigawa as stated in the office communication above. A  
20       review of Tanigawa fails to show that claim 5 reads on Tanigawa. Exception is taken with the  
21       broad interpretation. Tanigawa doesn't allude to video data that includes "audio data when said  
22       web page includes voice or sound." Thus claim 5 is allowable over the cited art for itself and  
23       also because it depends on allowable claim 1.

24       *Regarding claim 7, Tanigawa discloses a method as discussed in the rejection of claim 1.*  
25       *Tanigawa further discloses the predetermined compression scheme is an MPEP2*  
26       *standard (col. 20, lines 28-67).*

27       In response, the applicants respectfully state that exception is taken with the comparison of the  
28       elements of claim 7 and the art of Tanigawa as stated in the office communication above. A  
29       review of Tanigawa fails to show that claim 7 regarding browserless browsing reads on  
30       Tanigawa. Thus claim 7 is allowable over the cited art for itself and also because it depends on  
31       allowable claim 1.

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1 Moreover, claim 7 is amended to protect a particular embodiment of the present invention and  
2 resulting with all its advantages. It is certainly allowable over Tanigawa.

3 *Regarding claims 8-9, 11-12, the limitations of the broadcast system as claimed*  
4 *correspond to the limitations of the method as claimed in claims 1, 3, and are analyzed as*  
5 *discussed with respect to the rejection of claims 1, 3, 5, 7.*

6 In response, the applicants respectfully state that as with method claim 1, exception is taken with  
7 the comparison of the elements of apparatus claims 8-9, 11-12 and the art of Tanigawa as stated  
8 in the office communication above. A review of Tanigawa fails to show that claims 8-9, 11-12  
9 read on Tanigawa. This is particularly so, with the narrowing of claim 8 to include "means for  
10 establishing an association between the link provided to the video data and a position of a cursor  
11 in the video data transmitted to the video display device by comparing a position coordinate of  
12 the cursor with coordinates of points included in area links linked to other web pages and the  
13 like." Thus claim 8 and all claims that depend on claim 8 are allowable over the reference.

14 *Regarding claims 16-18, the method as claimed is broader in scope than the method as*  
15 *claimed in claims 1-3, and are analyzed as discussed in the rejection of claims 1-3.*

16 In response, the applicants respectfully state that as with method claim 1, exception is taken with  
17 the comparison of the elements of apparatus claims 16-18 and the art of Tanigawa as stated in the  
18 office communication above. A review of Tanigawa fails to show that claims 16-18 read on  
19 Tanigawa. All the remarks regarding the non-anticipation of Tanigawa of claim 1, are similarly  
20 applicable to claim 16. This is particularly so, with the narrowing of claim 16 to include  
21 "establishing an association between a link provided to the video data and a position of a cursor  
22 in the video data transmitted to the video display device by comparing a position coordinate of  
23 the cursor with coordinates of points included in area links linked to other web pages and the  
24 like." Thus claim 16 and claims 17-20 that depend on claim 16 are allowable over the reference.

25 *Claim Rejections -35 USC ~ 103*

26 *4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all*  
27 *obviousness rejections set forth in this Office action:*

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1           (a) A patent may not be obtained though the invention is not identically disclosed or described as set  
2           forth in section 102 of this title, if the differences between the subject matter sought to be patented and the  
3           prior art are such that the subject matter as a whole would have been obvious at the time the invention was  
4           made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall  
5           not be negated by the manner in which the invention was made.

6           5. Claims 13-15, 19-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
7           Tanigawa et al. (US 5,973,681).

8           Claims 13-15, 19-20 are directed toward embody the method of claims 1, 8, 16 in "readable medium" or "storage device readable by machine" or "program product". It would have been obvious to embody the procedures of Tanigawa as discussed with respect to claims 1, 8, 16 in a "readable medium" or "storage device readable by machine" or "program product" in order that the instructions could be automatically performed by a processor.

14          In response, the applicants respectfully state that exception is taken with the comparison of the  
15          elements of claims 13-15, 19-20 and the art of Tanigawa as stated in the office communication  
16          above. A review of Tanigawa fails to show that claims 13-15, 19-20 are made obvious by  
17          Tanigawa. Claims 13-15, 19-20 are Beauregard computer type claims. The office  
18          communication apparently indicates that there is no place or need for Beauregard computer type  
19          claims because of obviousness. It should be very much appreciated that Beauregard computer  
20          type claims have special protective value of the invention to the assignee. Tanigawa apparently  
21          makes no illusion to Beauregard computer type claims. In some inventions Beauregard computer  
22          type claims are appropriate and in some these are not. Thus claims 13-15, 19-20 are allowable  
23          over the cited art, each for itself and also because each depends on an allowable claim.

24           6. Claims 6, 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over  
25           Tanigawa et al. (US 5,973,681) as applied to claim 4 or claim 8 above, and in view of  
26           Mao et al. (US 7,089,579 B1).

27          In response, the applicants respectfully state that apparently claims 6 and 10 are not made  
28          obvious by the combination of Tanigawa and Mao. It was shown above that Tanigawa doesn't  
29          allude to browserless browsing, which are an integral part of claims 6 and. The cited art to Mao,  
30          US Patent 7,089,579, filed December 6, 1999, is entitled: "System for transporting MPEG video  
31          as streaming video in an HTML web page". The Mao abstract reads:

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1 "An implementation of streaming video in HTML (Hypertext Markup Language) Web  
2 pages combines video signals in MPEG digital television format with Internet World  
3 Wide Web pages in HTML format. Internet streaming video is transcoded into MPEG-2  
4 digital video format and multiplexed along with other MPEG-2 digital video signals for  
5 transport within a multiple channel digital video system. A navigational control map,  
6 transmitted from the headend to the CATV set-top box in a fixed location in the MPEG-2  
7 video data steam, permits the CATV set-top to find the requested video clip in a  
8 predetermined Packet Identifier of the MPEG-2 data stream. The viewer controls the  
9 video clip (e.g., play, pause, resume, restart etc.) during the session. In the two-way  
10 embodiment, the set-top transmits control commands to the headend, which implements  
11 the command in MPEG-2 video. The disclosed arrangement allows the available  
12 MPEG-2 decoder hardware in the CATV set-top box to be used to display streaming  
13 video without requiring additional hardware or additional RAM memory".

14 Thus Mao is concerned with streaming video in HTML. Mao is not concerned with browserless  
15 browsing as claims 6 and 10. There is apparently no reason to combine Mao in US Class  
16 725/109, with Tanigawa in US Class 345/327, except in an attempt to find a combination that  
17 allegedly makes claims 6 and 10 obvious. Since, there apparently is no reference in the cited art  
18 of one to another, it is a use of hindsight to try to find a combination for the elements of claims 6  
19 and 10. This is not allowed in an obviousness rejection. Thus claims 6-10 are allowed over the  
20 combination.

21 *Regarding claim 6, Tanigawa discloses a method as discussed in the rejection of claim 4.  
22 Tanigawa also discloses the link is selected by the user, and bidirectional communication  
23 (see include, but is not limited to, col. 27, line 19-col. 29, line 32). However, Tanigawa  
24 does not explicitly disclose sending link information to the transmitting unit when any  
25 one link provided to the data transmitted to the video display is selected.*

26 *Mao discloses sending link information to the transmitting unit when the link provided to  
27 the data transmitted to the video display is selected (see col. 8, lines 5-67, figures 1,4).  
28 Therefore, it would have been obvious to one of ordinary skill in the art at the time  
29 the invention was made to modify Tanigawa to use the teaching as taught by Mao in  
30 order to improve efficiency in transmitting of content that is not stored at the receiving  
31 device.*

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1       *Regarding claim 10, the additional limitations of the system as claimed correspond to the*  
2       *additional limitations of the method as claimed in claim 6, and are analyzed as discussed*  
3       *with respect to the rejection of claim 6.*

4       In response, the applicants respectfully state that exception is taken with the comparison of the  
5       elements of claim 1 and the art of Tanigawa and Mao as stated in the office communication  
6       above. A review of Tanigawa failed to show that claim 4 reads on Tanigawa. Mao col 8, 5-67,  
7       reads:

8       "The operation of a two-way CATV system embodying the present invention is illustrated  
9       in the timing diagram of FIG. 4. The system consists of four computing entities. At the  
10      headend there is an application manager 464 (102 in FIG. 1), a two way IP/MPEG server  
11      466 (106 in FIG. 1) and a video stream server 468 (108 in FIG. 1). The set-top 470 (126  
12      in FIG. 1) is at the viewer (user) location. In FIG. 4, various messages are exchanged  
13      between the four computing entities 464, 466, 468, 470.

14  
15      In operation, a Web page from the Internet is cached by the application manager 464,  
16      forwarded 450 to the two way IP/MPEG server 466 and transmitted 451 over the CATV  
17      system (HFC) to the CATV set-top 470. In the two-way embodiment, Web pages are  
18      transported using the DVB standard for TCP/IP over MPEG cable See section 7 of the  
19      European Broadcasting Union DVB specification EN 301 192 v1.1.1, published by the  
20      European Standards Institute (1997) for a description of the TCP/IP over MPEG cable  
21      standard. However, the Web page 450 may also be broadcast as part of a rotating carousel  
22      of HTML Web pages, as more fully described in the above cited pending patent  
23      application.

24  
25      When the user selects a URL representing streaming video in the Web page being  
26      viewed, the selected URL is transmitted 452 back to the application manager 464 in a  
27      session request. Return path transport is standard TCP/IP over MPEG cable. The  
28      application manager establishes a communication (COM) session and sends a message  
29      454 to the video stream server 468 which transmits a video control map 456 to the set-top  
30      470. The video control map 456, also called the Session Information Table, or SIT, is  
31      broadcast in a predetermined PID of the MPEG-2 data stream, and addressed to a specific  
32      set-top 470 by the tableIDext field. That is, all set-tops use the same PID to transport the  
33      control map (SIT) but use the tableIDext field to filter out the right address. At  
34      substantially the same time or shortly thereafter, regular MPEG-2 video 458  
35      corresponding to the requested video clip is transmitted to the set-top 470.

36  
37      The URL in the session request 452 represents streaming video. If the application

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1 manager 464 has not recently cached streaming video for the URL in the session request  
2 at the headend, the Internet access server (proxy server 118 in FIG. 1) retrieves the  
3 desired streaming video from the designated URL on the Internet. The added or updated  
4 streaming video for that URL is cached in the proxy server, transcoded into MPEG-2  
5 video format and stored in the application manager 464. The proxy server and the  
6 application manager 464 operate to cache streaming video at the headend, thus storing  
7 Internet streaming video content closer to the user.

8  
9 The viewer at the set-top box 470 location controls the play of the video clip by selecting  
10 (clicking on) an action control icon, such as PLAY, PAUSE, RESUME etc. The viewer's  
11 control action is transmitted back 460 to the application manager 464, which modifies the  
12 running status of the COM session to reflect the viewer's selected control action. In  
13 accordance with the new running status, the application manager 464 sends a new  
14 communication (COM) message 461 to the video stream server 468 which transmits a  
15 modified SIT control map 462 to the set-top 470. For example, from the SIT table  
16 definition below, if PAUSE was selected, the running status is change to equal 4  
17 (PAUSE). "

18 A review of this portion indicates use of some similar words but not functionally as in claims 6  
19 and 10.

20 Mao fails to help Tanigawa to teach or make obvious steps or means for "sending link  
21 information to the transmitting unit when any one link provided to the data transmitted to the  
22 video display device is selected; and transmitting a web page linked to the selected link from the  
23 Internet to the transmitting unit," as in claims 6 and 10.

24 Thus claims 6 and 10 are allowable over the cited art, each for itself and also because each  
25 depends on an allowable claim.

26 As stated above, in order to bring this application to allowance, claims 1, and 7 are amended and  
27 claim 21 is added.

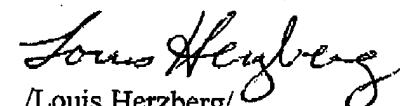
28 Claim 7 is a narrow claim having all the advantages of the present invention. It is anticipated  
29 that it would easily be recognized that it is allowable over any of the cited art. It includes  
30 specific and novel combination of steps for net browsing. Even if each individual step would be  
31 known, which applicants maintain they are not, a new combination of known elements is  
32 allowable, especially in as much as it results in the advantages described in the specification.

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- 1 Claim 21 is a narrow claim of a special embodiment of the present invention. It is a combination
- 2 of elements not taught previously.
  
- 3 It is anticipated that this amendment shows that all claims 1-21 are allowable. If any question
- 4 remains, please contact the undersigned.
  
- 5 Please charge any fee necessary to enter this paper to deposit account 50-0510.

6

Respectfully submitted,



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